

ABSTRACT OF THE DISCLOSURE

The invention provides a force detector in which power consumption is suppressed. Four electrodes E11 through E14 are formed on a substrate, and an elastic deformable body formed of a rubber film is disposed thereon. A conductive coating is applied on the lower surface of the elastic deformable body to provide a displacing conductive layer 26. Four capacitance elements C11 through C14 are comprised by the electrodes E11 through E14 and the displacing conductive layer 26 opposed to the electrodes. The capacitance values thereof are converted into voltage values V11 through V14 by C/V converter circuit 50, and based on operation by signal processing circuit 60, an external force applied to the elastic deformable body is detected. A pair of contacting electrodes E15 and E16 are formed on the substrate, and when an external force with a predetermined strength or more is applied, the elastic deformable body deforms, and the displacing conductive layer 26 comes into contact with both electrodes E15 and E16, simultaneously. The potential of the electrode E16 is taken-in from the terminal T5, and when said potential is Vcc, the C/V converter circuit 50 is operated in a standby mode with less power consumption, and when said potential is GND, the circuit is operated in a normal mode.

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